CLAIMS

What is claimed is:

1.   A method for establishing a network connection between a client system and a network comprising:

engaging a customer in an engagement relationship,

identifying characteristics of a customer's system,

establishing requirements for customer's system in view of said engagement relationship,

collecting real time connectivity information by said customer's system, including

monitoring and collecting network traffic of said customer's system in real time,

assigning a weight to the real time network traffic based on popularity,

and creating a weighted list from the weighted real time network traffic,

utilizing the real time connectivity information by said customer's system to establish a connection with the network, including detecting a failed connection, determining a cause of the failed connection by the customer's system, and generating a solution based on the cause and the real time connectivity information,

utilizing data from a customer's local persistent knowledgebase or server to establish a connection to the network, and,

storing said weighted list in the customer's system.

2.   The method of claim 1, wherein the local persistent knowledgebase is stored in the client system.

3. The method of claim 1 further comprising:

utilizing a set of local rules to establish a connection to the network.

4. The method of claim 1, further comprising informing the customer of the solution.

5. The method of claim 4, further comprising implementing the solution.

6. The method of claim 1, further comprising analyzing at least one error message associated with the failed connection and auditing a plurality of communication devices to determine which of the plurality of communication devices is a potential candidate for connectivity.

7. The method of claim 6, wherein further comprising analyzing the real time connectivity information to determine a range of IP addresses assigned by a DHCP server, generating a plurality of IP addresses within the range, selecting one of the plurality of IP addresses and determining whether it is in use and assigning the one IP address to said customer's system if the one IP address is not in use.

8. A method for using a computer readable medium containing program instructions by a service provider on a customer's system, for establishing a connection

between a client system and a network, under terms and conditions of an engagement

relationship between said service provider and a customer, comprising

engaging a customer in an engagement relationship,

5   identifying characteristics of a customer's system,

establishing requirements for customer's system in view of said engagement

relationship,

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and implementing said computer readable medium,

wherein said medium provides for:

collecting real time connectivity information by said customer's system, including

15   monitoring and collecting network traffic of said customer's system in real

time,

assigning a weight to the real time network traffic based on popularity,

and creating a weighted list from the weighted real time network traffic,

utilizing the real time connectivity information by said customer's system to establish a

20 connection with the network, including detecting a failed connection, determining a cause of

the failed connection by the customer's system, and generating a solution based on the cause

and the real time connectivity information,

utilizing data from a customer's local persistent knowledgebase or server to establish a

connection to the network, and,

25   storing said weighted list in the customer's system.

9. The method of claim 8, wherein the local persistent knowledgebase is stored in the

client system.

10.   The method of claim 8 further comprising:

utilizing a set of local rules to establish a connection to the network.

11. The method of claim 10, further comprising informing the customer of the solution.

12. The method of claim 11, further comprising implementing the solution.

13. The method of claim 8, further comprising analyzing at least one error message associated with the failed connection and auditing a plurality of communication devices to determine which of the plurality of communication devices is a potential candidate for connectivity.

14.   The method of claim 13, wherein further comprising analyzing the real time connectivity information to determine a range of IP addresses assigned by a DHCP server, generating a plurality of IP addresses within the range, selecting one of the plurality of IP addresses and determining whether it is in use and assigning the one IP address to said customer's system if the one IP address is not in use.